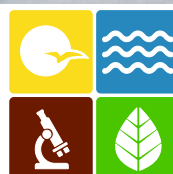


FUSRAP

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM OVERSITE AND MONITORING COOPERATIVE AGREEMENT

1st Quarter: January through March 2015 Report



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Missouri Department of Natural Resources

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COVER PHOTO: Excavation of contaminated soil continued at VPs 57 and 58 in North County, directly southwest of the Coldwater Creek crossing near Pershall Road. This excavation was undergoing final status survey sampling.

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Another view of VP57/58 work in North County, southwest of the Coldwater Creek crossing at Pershall Road, excavations near the billboard and along Pershall Road were inspected.

History of the Formerly Utilized Sites Remedial Action Program Sites

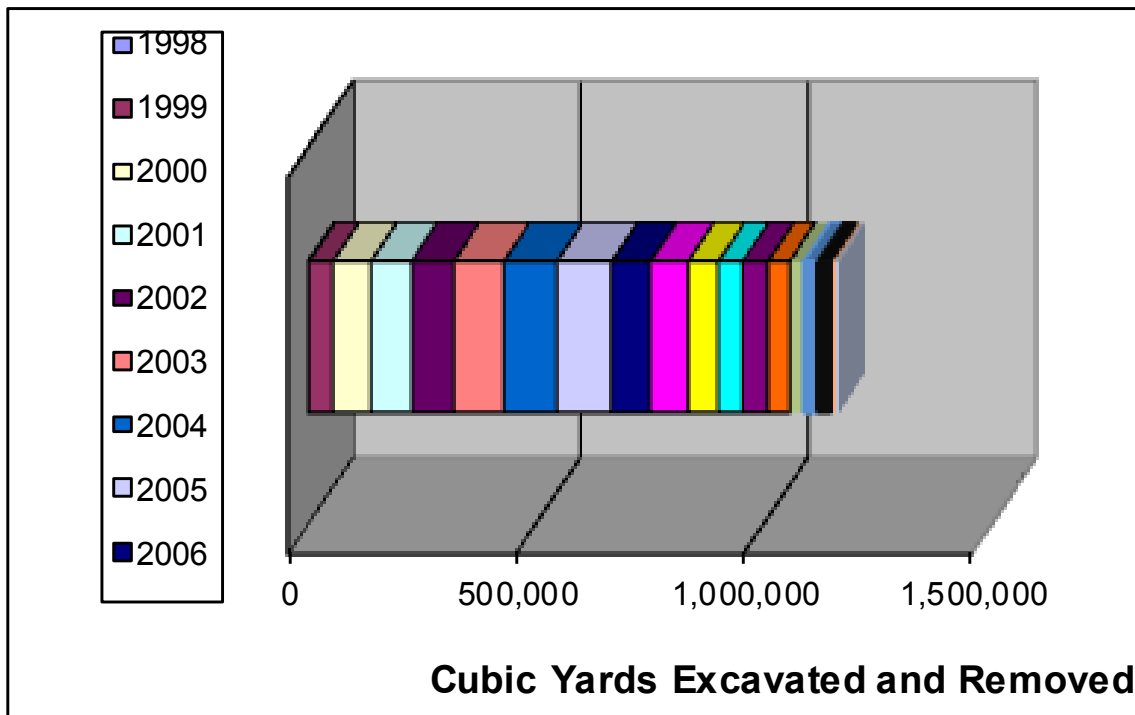
The St. Louis Downtown Site (SLDS) processed uranium for the nation's early atomic energy program. In 1946, the U.S. Department of Energy's (DOE) predecessor agencies began utilizing the St. Louis Airport Site (SLAPS) as a storage area for radioactive wastes and processed residues, the majority of which originated at the SLDS. Methods of storage at the SLAPS included both uncovered bulk storage piles and materials containerized in drums. In 1966 the materials at the SLAPS were sold by the Atomic Energy Commission (AEC) and were shipped to a facility at 9200 Latty Avenue (Futura), where the majority of the material was dried and shipped to out-of-state processing facilities. 8,700 tons of radioactively contaminated barium sulfate processed waste were mixed with 39,000 tons of soil and disposed of at West Lake Landfill in 1973. (West Lake Landfill is being addressed separately from the FUSRAP.)

Processing, transportation, storage, and management practices during the above-stated period led to the contamination of the three major FUSRAP sites: SLDS, SLAPS, and the Hazelwood Interim Storage Site (HISS)/Futura, with the latter two sites being placed on the National Priorities List (NPL) in 1989. In addition, approximately 78 contaminated vicinity properties have been identified as SLAPS Vicinity Properties (VPs).

On October 13, 1997, the Energy & Water Appropriations Bill transferred the responsibility for the remediation of FUSRAP properties from the DOE to the U. S. Army Corps of Engineers (USACE). The total volumes of contaminated soils, sediments and debris at St. Louis FUSRAP sites were estimated to have been about 1.1 million cubic yards. USACE has already excavated more soil than had been originally estimated.

Status of Work Completed This Quarter

MAJOR AREA	SPECIFIC SITES	WORK DESCRIPTION
North County (NC)	SLAPS Vicinity Properties	Pershall Avenue Right of Way sampling and Coldwater Creek Vicinity Property from Frost Ave. to St. Denis sampling continued during the quarter. Sampling and remediation of portions of VP57 and VP58 continued during the quarter. The volume of soil removed from the vicinity properties this quarter was about 1,410 yd ³ .
North County (NC)	HISS/Futura and Latty Ave. Vicinity Properties	Most remediation work has been completed on these properties, although final documentation of this status has not yet been completed. No soil or debris was shipped from these properties during the quarter.
Saint Louis Downtown Sites (SLDS)	Saint Louis Downtown Site and Vicinity Properties	Building 101 excavation at Plant 6 West Half continued during the quarter. Utility supports of Mallinckrodt excavations within the plant 7W/700 Pad area were completed. Additional sampling for a remedial investigation addendum for the SLDS was being considered. The volume of soil removed from St. Louis Downtown Sites in this quarter was about 5,813 yd ³ .
NON-SITE SPECIFIC		Two utility support operations were undertaken by the USACE during the quarter. The total volume of soil and debris removed this quarter for the entire St. Louis FUSRAP project was about 7,223 yd ³ . (For reference, during Federal Fiscal Year 2014 about 30,740 yd ³ of material was removed from all St. Louis FUSRAP project sites.)



Years and quarters on this chart are based on the Federal Fiscal Year (FFY). For example, FFY 2015 is October 1, 2014, through September 30, 2015.

Work Performed by Department Personnel

DOCUMENT REVIEWS

The Missouri Department of Natural Resources' Federal Facilities Section (FFS) provides technical review on major decision documents, work plans, pre-design investigation reports, remedial designs, and post remedial action reports.

Comments are submitted to the USACE for response and become part of the public record. Listed below are both documents reviewed by the Department during this quarter and documents previously reviewed for which some resolution of comments occurred or is pending.

1. ***“Record of Decision for the Inaccessible Soil Operable Unit Associated with Group 1 Properties at the St. Louis Downtown Sites,” Final, dated September 29, 2014.***

USACE provided a response to USEPA and DNR comments in this final Record of Decision.

2. ***“Remedial Design / Remedial Action Work Plan for the North St. Louis County Sites,” Revision B, dated September 29, 2014.***

The Department requested clarification regarding statements in the RD as compared to the ROD for North County. We requested USACE describe the transition of sites to USDOE in the document and expand upon the definition of remedial activities. The Department asked that the document include a summary of previously completed work, detail references for the document, and contain a statement regarding ground water impacts to surface water and drinking water sources. We also asked for expanded descriptions in several sections of the document. Our comments were transmitted on January 27, 2015.

DOCUMENT REVIEWS (CONTINUED)

3. *“Pre-Design Investigation Summary Report and Final Status Survey Evaluation for Byassee Drive and Adjacent Properties” Revision B, dated November 14, 2014*

The Department and Missouri Department of Health and Senior Services (DHSS) reviewed this document. DHSS made comments regarding parameters in RESRAD modeling and use of updated values for slope factors. DHSS concluded that the remediation was protective, and the Department had no comments on the draft document. These comments were transmitted on February 3, 2015.

4. *“Post Remedial Action Report and Final Status Survey Evaluation for the St. Louis Site Vicinity Property Banshee Road,” Revision B, dated November 20, 2014.*

The Department and DHSS reviewed the draft document. DHSS asked for clarification regarding 15 mrem/yr benchmark in development of DCGLs. DHSS performed an independent analysis of the post remedial report data to conclude that it was protective. These comments were transmitted on February 3, 2015.

5. *“Post Remedial Action Report and Final Status Evaluation for the Accessible Soil Within the SLDS Vicinity Property Terminal Railroad Association (DT-9),” Revision B, dated December 15, 2014*

The Department and DHSS reviewed the draft document. DHSS performed an independent analysis of the post remedial report data to conclude that it was protective. The Department commented that a discussion of NORM might be helpful in the observations and lessons learned section of the document. These comments were transmitted February 7, 2015.

6. *“Destrahan Street-East/Plant 7W-North Remedial Action Work Area-Specific Description and Design Package, St. Louis Downtown Site” Revision B, dated January 12, 2014*

The Department requested that the description of the sewer bypass method and any MSD coordination required be expanded to include additional details. Comments were transmitted February 7, 2015.

8. *“Third Five year Review Report for the FUSRAP St. Louis Sites,” Revision B, dated December 5, 2014.*

The Department reviewed the draft document. DHSS review of the document continues. The Department requested more specifics on utility and property owner outreach; we asked for more frequent contact of entities to prevent miscommunications regarding status of properties. We asked that the document include consideration of interim institutional controls use. The Department recommended adding information on status to the included tables of properties and expanded discussions in several sections. We asked for USACE to consider publishing this report on the FUSRAP web pages. Preliminary comments were transmitted February 27, 2015; DHSS comments will be transmitted upon completion of their review.

SITE OBSERVATIONS

Field personnel conduct site visits to observe and document the status of remedial actions, environmental monitoring, contaminant migration prevention and pre-design investigations. USACE personnel are immediately notified of findings, and reports are filed for public record.

The following site visits were conducted on these dates during this quarter:

SPECIFIC SITES	JANUARY	FEBRUARY	MARCH
North County Sites (HISS/Futura, SLAPS, and Vicinity Properties)	22	18	3, 11, 12, 17, 31
SLDS	28	17	3, 11, 12

SAMPLING

Samples are obtained by Department personnel and shipped to a contract laboratory for analysis. The purposes of sample collection include confirmation of results from remedial actions, storm water controls/treatment, and investigating locations of potential concern.

U.S. Army Corps of Engineers Coldwater Creek Bi-Annual Sampling

The Department observed the 1st quarter groundwater monitoring of FUSRAP sites on March 3. We obtained split samples from monitoring wells HISS-10, B53-W09S, and PW46. These samples have been analyzed, and our results are available upon request. We observed the bi-annual sampling of Coldwater Creek on March 31 and obtained split samples of sediment and surface water at locations C007, C008, and C009. These samples have also been analyzed, and our results are available upon request

COMMUNITY RELATIONS

Department personnel are available for questions, requests for information, or as a means of submitting comments and concerns. It is our goal to encourage community involvement and ensure that the concerns of the citizens of Missouri are addressed. Special requests regarding field oversight, research and presentations are welcome. Contact the Federal Facilities Section at (573) 751-3907 for assistance.

OVERSIGHT COMMITTEE

The St. Louis Oversight Committee meets periodically to get updates on current remediation work, discuss the history of the sites, and to be briefed on USACE future plans and provide community feedback to USACE. The St. Louis Oversight Committee held a public briefing meeting on January 29, 2015. USACE's project managers gave update presentations on the current remediation work; USACE also presented maps showing historic sampling of Coldwater Creek and fielded questions on their future work plans. St. Louis County Health Department introduced staff working on Coldwater Creek and other issues at this meeting. The next public meeting of the committee is not yet set. The St. Louis Oversight Committee sets their own meeting times and agendas; a current contact for the group is Carl Chappell at (Cfchappell@sbcglobal.net).

REGULATORS COORDINATION MEETINGS

Personnel from the EPA, the USACE, and the Department periodically meet in person and by conference call to discuss site status, document schedules, landowner assistance projects and other similar issues. These coordination meetings are beneficial, as they keep the parties informed of site status, allow for discussion of cleanup issues, and provide coordination of agency activities as they relate to cleanup of the sites. Meetings were held on January 14, January 21, February 4, February 18, and March 11 during this quarter.

USACE REMEDIAL ACTIONS

NORTH COUNTY

- Characterization sampling of Pershall Rd. was on hold during the quarter.
- Characterization sampling of Coldwater Creek between Frost Ave. and St. Denis bridge continued.
- VP 57/58 characterization sampling and remediation continued during the quarter.

ST. LOUIS DOWNTOWN SITE

- Plant 6 (Mallinckrodt) excavation of soils underlying building 101 continued during the quarter.
- Utility supports were completed during the quarter.
- USACE considered additional sampling requirements for an remedial investigation addendum.



Plant 6 West Half Building 101 at SLDS during the quarter. Remediation of these areas is expected to continue into the next quarter.

Tasks and Goals for Next Quarter

NORTH COUNTY

- USACE characterization sampling of Coldwater Creek between Frost Ave. and St. Denis bridge may continue.
- Pershall Road characterization sampling may be completed. Banshee Rd. additional verification sampling may begin.
- USACE may begin remediation North of McDonnell Blvd adjacent to Coldwater Creek.
- USACE will continue to remediate at VP57/VP58 west of Coldwater Creek and South of Pershall Rd.

ST. LOUIS DOWNTOWN SITE

- USACE remediation of DT-2 (City Property) may continue. This work is currently expected to be completed in mid-2016.
- USACE Plant 6/building 101 area soil excavation will continue. This work is currently expected to be completed mid-2015.
- Support of utility excavation activities at the St. Louis Downtown Sites will continue.
- Additional sampling locations for a remedial investigation addendum may be identified.

DOCUMENT REVIEWS

Review of the following documents and data are potentially anticipated during the next quarter.

NORTH COUNTY

- McDonnell Blvd PDI Report
- Final North County Remedial Design/Remedial Action Work Description
- Final North County Institutional Controls Plan
- Final FUSRAP Community Involvement Plan
- Pershall Road PDI Work Plan
- VP40A Pre-Design Investigation Report Partial

ST. LOUIS DOWNTOWN SITE

- ESD for Kiesel Hall Street Area Expansion
- Kiesel Hall Street Property Post Remedial Action Report
- Explanation of Significant Difference for SLDS

SITE OBSERVATIONS AND SAMPLING

Our on-going role in providing site observations and sampling investigations will continue as per previous quarters.

DEPARTMENT PROJECTS

Staff will continue to work on committees affiliated with long-term stewardship (also known as LTS), Groundwater, and the 5-year review.

LONG-TERM STEWARDSHIP

Long-term stewardship applies to sites and properties where long-term management of contaminated environmental media is necessary to protect human health and the environment over time. This generally includes the establishment and maintenance of physical and legal controls, implementation entities, authorities, accountability mechanisms, information and data management systems, and other resources. The need for long-term stewardship will exist for areas of inaccessible contamination at both the North St. Louis County and Downtown Properties located under roads, railroads, buildings and other similar structures deemed by the current owners to be vital or in-use. It also exists for portions of the downtown site for which Remediation Goals are deemed suitable for industrial uses. Completion of the project is expected by 2017, and this will be followed by a two-year transitional period to transfer responsibility from the USACE to the U.S. Department of Energy.

Financial Reporting

The Department's Hazardous Waste Program submits a financial report separate from this document. The report includes costs incurred during the reporting period with request for reimbursement forms.

Status of Work Completed This Quarter

* USACE Cooperative Agreement funds were not used for all of the staff listed as participating in this training, conference, or meeting;

** USACE Cooperative Agreement funds were used for a percentage of this training.

TRAINING, CONFERENCE OR MEETING	DATES	DEPARTMENTAL STAFF
Hazardous Waste Program, Federal Facilities Section Meeting	3/19	Carey, Alexander, Anderson, Drake, Doster, Gilstrap *
VP57/58 Update Meeting	1/16	Carey
HWP All Staff Meetings	1/23	Carey, Alexander, Anderson, Drake, Doster, Gilstrap *
DHSS Missouri Study Panel at Washington University	1/27, 1/28	Carey, Doster
FUSRAP Oversight Committee Public Meeting	1/29	Carey, Drake
Preparatory Meeting Coldwater Creek Near VP57/58	2/18	Carey
Coldwater Creek Mapping Teleconference	3/9	Carey, Drake
USEPA Site Tours SLDS, CWC	3/12	Carey
RRA Unit Meeting	3/13	Carey, Drake, Alexander, Anderson *
Regulator Conference Calls, Bi-Weekly Meetings	1/14, 1/21, 2/18, 3/11	Carey, Drake, Anderson, Alexander